ENTERED   PCT10

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   4 <110> APPLICANT: Carballo-Jane, Ester
   5        Lai, Wi S.
   6        Blackshear, Perry J.
   8 <120> TITLE OF INVENTION: TTP-RELATED ZINC FINGER DOMAINS AND METHODS OF USE
  10 <130> FILE REFERENCE: 14014.0349U2
C--> 12 <140> CURRENT APPLICATION NUMBER: US/10/049,586
C--> 12 <141> CURRENT FILING DATE: 2002-02-14
  12 <150> PRIOR APPLICATION NUMBER: PCT/US00/22199
  13 <151> PRIOR FILING DATE: 2000-08-14
  15 <150> PRIOR APPLICATION NUMBER: 60/148,810
  16 <151> PRIOR FILING DATE: 1999-08-13
  18 <160> NUMBER OF SEQ ID NOS: 45
  20 <170> SOFTWARE: FastSEQ for Windows Version 4.0
  22 <210> SEQ ID NO: 1
  23 <211> LENGTH: 326
  24 <212> TYPE: PRT
  25 <213> ORGANISM: Homo sapiens
  27 <400> SEQUENCE: 1
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  29 1                 5                  10                  15
  30 Val Pro Val Pro Ser Asp His Gly Gly Thr Glu Ser Ser Pro Gly Trp
  31               20                  25                  30
  32 Gly Ser Ser Gly Pro Trp Ser Leu Ser Pro Ser Asp Ser Ser Pro Ser
  33           35                  40                  45
  34 Gly Val Thr Ser Arg Leu Pro Gly Arg Ser Thr Ser Leu Val Glu Gly
  35       50                  55                  60
  36 Arg Ser Cys Gly Trp Val Pro Pro Pro Gly Phe Ala Pro Leu Ala
  37 65                  70                  75                  80
  38 Pro Arg Leu Gly Pro Glu Leu Ser Pro Ser Pro Thr Ser Pro Thr Ala
  39               85                  90                  95
  40 Thr Ser Thr Thr Pro Ser Arg Tyr Lys Thr Glu Leu Cys Arg Thr Phe
  41               100                 105                 110
  42 Ser Glu Ser Gly Arg Cys Arg Tyr Gly Ala Lys Cys Gln Phe Ala His
  43           115                 120                 125
  44 Gly Leu Gly Glu Leu Arg Gln Ala Asn Arg His Pro Lys Tyr Lys Thr
  45       130                 135                 140
  46 Glu Leu Cys His Lys Phe Tyr Leu Gln Gly Arg Cys Pro Tyr Gly Ser
  47 145                 150                 155                 160
  48 Arg Cys His Phe Ile His Asn Pro Ser Glu Asp Leu Ala Ala Pro Gly
  49               165                 170                 175
  50 His Pro Pro Val Leu Arg Gln Ser Ile Ser Phe Ser Gly Leu Pro Ser
  51               180                 185                 190
  52 Gly Arg Arg Thr Ser Pro Pro Pro Pro Gly Leu Ala Gly Pro Ser Leu
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RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/049,586

Input Set : A:\W127221.txt
Output Set: N:\CRF3\03012002\J049586.raw

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53           195               200               205
55 Ser Ser Ser Ser Phe Ser Pro Ser Ser Ser Pro Pro Pro Gly Asp
56     210               215               220
57 Leu Pro Leu Ser Pro Ser Ala Phe Ser Ala Ala Pro Gly Thr Pro Leu
58 225               230               235               240
59 Ala Arg Arg Asp Pro Thr Pro Val Cys Cys Pro Ser Cys Arg Arg Ala
60               245               250               255
61 Thr Pro Ile Ser Val Trp Gly Pro Leu Gly Gly Leu Val Arg Thr Pro
62               260               265               270
63 Ser Val Gln Ser Leu Gly Ser Asp Pro Asp Glu Tyr Ala Ser Ser Gly
64           275               280               285
65 Ser Ser Leu Gly Gly Ser Asp Ser Pro Val Phe Glu Ala Gly Val Phe
66     290               295               300
67 Ala Pro Pro Gln Pro Val Ala Ala Pro Arg Arg Leu Pro Ile Phe Asn
68 305               310               315               320
69 Arg Ile Ser Val Ser Glu
70               325
72 <210> SEQ ID NO: 2
73 <211> LENGTH: 338
74 <212> TYPE: PRT
75 <213> ORGANISM: Homo sapiens
77 <400> SEQUENCE: 2
78 Met Thr Thr Thr Leu Val Ser Ala Thr Ile Phe Asp Leu Ser Glu Val
79  1                5                10               15
80 Leu Cys Lys Gly Asn Lys Met Leu Asn Tyr Ser Ala Pro Ser Ala Gly
81           20               25               30
82 Gly Cys Leu Leu Asp Arg Lys Ala Val Gly Thr Pro Ala Gly Gly Gly
83     35                40               45
84 Phe Pro Arg Arg His Ser Val Thr Leu Pro Ser Ser Lys Phe Arg Gln
85     50               55               60
86 Asn Gln Leu Leu Ser Ser Leu Lys Gly Glu Pro Ala Pro Ala Leu Ser
87 65               70               75               80
88 Ser Arg Asp Ser Arg Phe Arg Asp Arg Ser Phe Ser Glu Gly Gly Glu
89           85               90               95
90 Arg Leu Leu Pro Thr Gln Lys Gln Pro Gly Gly Gly Gln Val Asn Ser
91           100              105              110
92 Ser Arg Tyr Lys Thr Glu Leu Cys Arg Pro Phe Glu Glu Asn Gly Ala
93     115              120              125
94 Cys Lys Tyr Gly Asp Lys Cys Gln Phe Ala His Gly Ile His Glu Leu
95     130              135              140
96 Arg Ser Leu Thr Arg His Pro Lys Tyr Lys Thr Glu Leu Cys Arg Thr
97 145              150              155              160
98 Phe His Thr Ile Gly Phe Cys Pro Tyr Gly Pro Arg Cys His Phe Ile
99               165              170              175
100 His Asn Ala Glu Glu Arg Arg Ala Leu Ala Gly Ala Arg Asp Leu Ser
101           180              185              190
102 Ala Asp Arg Pro Arg Leu Gln His Ser Phe Ser Phe Ala Gly Phe Pro
103     195              200              205
104 Ser Ala Ala Ala Thr Ala Ala Ala Thr Gly Leu Leu Asp Ser Pro Thr
```

```
105      210                    215                    220
106 Ser Ile Thr Pro Pro Pro Ile Leu Ser Ala Asp Asp Leu Leu Gly Ser
107 225                    230                    235                    240
108 Pro Thr Leu Pro Asp Gly Thr Asn Asn Pro Phe Ala Phe Ser Ser Gln
109                    245                    250                    255
110 Glu Leu Ala Ser Leu Phe Ala Pro Ser Met Gly Leu Pro Gly Gly Gly
111                    260                    265                    270
112 Ser Pro Thr Thr Phe Leu Phe Arg Pro Met Ser Glu Ser Pro His Met
113                    275                    280                    285
114 Phe Asp Ser Pro Pro Ser Pro Gln Asp Ser Leu Ser Asp Gln Glu Gly
115      290                    295                    300
116 Tyr Leu Ser Ser Ser Ser Ser Ser His Ser Gly Ser Asp Ser Pro Thr
117 305                    310                    315                    320
118 Leu Asp Asn Ser Arg Arg Leu Pro Ile Phe Ser Arg Leu Ser Ile Ser
119                    325                    330                    335
120 Asp Asp
123 <210> SEQ ID NO: 3
124 <211> LENGTH: 492
125 <212> TYPE: PRT
126 <213> ORGANISM: Homo sapiens
128 <400> SEQUENCE: 3
129 Met Ser Thr Thr Leu Leu Ser Ala Phe Tyr Asp Val Asp Phe Leu Cys
130 1                    5                     10                    15
131 Lys Thr Glu Lys Ser Leu Ala Asn Leu Asn Leu Asn Asn Met Leu Asp
132                    20                    25                    30
133 Lys Lys Ala Val Gly Thr Pro Val Ala Ala Pro Ser Ser Gly Phe
134      35                    40                    45
135 Ala Pro Gly Phe Leu Arg Arg His Ser Ala Ser Asn Leu His Ala Leu
136      50                    55                    60
137 Ala His Pro Ala Pro Ser Pro Gly Ser Cys Ser Pro Lys Phe Pro Gly
138 65                    70                    75                    80
139 Ala Ala Asn Gly Ser Ser Cys Gly Ser Ala Ala Ala Gly Gly Pro Thr
140                    85                    90                    95
141 Ser Tyr Gly Thr Leu Lys Glu Pro Ser Gly Gly Gly Gly Thr Ala Leu
142                    100                   105                   110
143 Leu Asn Lys Glu Asn Lys Phe Arg Asp Arg Ser Phe Ser Glu Asn Gly
144      115                   120                   125
145 Asp Arg Ser Gln His Leu Leu His Leu Gln Gln Gln Gln Lys Gly Gly
146      130                   135                   140
147 Gly Gly Ser Gln Ile Asn Ser Thr Arg Tyr Lys Thr Glu Leu Cys Arg
148 145                   150                   155                   160
149 Pro Phe Glu Glu Ser Gly Thr Cys Lys Tyr Gly Glu Lys Cys Gln Phe
150                    165                   170                   175
151 Ala His Gly Phe His Glu Leu Arg Ser Leu Thr Arg His Pro Lys Tyr
152                    180                   185                   190
153 Lys Thr Glu Leu Cys Arg Thr Phe His Thr Ile Gly Phe Cys Pro Tyr
154      195                   200                   205
155 Gly Pro Arg Cys His Phe Ile His Asn Ala Asp Glu Arg Arg Pro Ala
156      210                   215                   220
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Input Set : A:\W127221.txt
Output Set: N:\CRF3\03012002\J049586.raw

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157 Pro Ser Gly Gly Ala Ser Gly Asp Leu Arg Ala Phe Gly Thr Arg Asp
158 225                 230                 235                 240
159 Ala Leu His Leu Gly Phe Pro Arg Glu Pro Arg Pro Lys Leu His His
160             245                 250                 255
161 Ser Leu Ser Phe Ser Gly Phe Pro Ser Gly His His Gln Pro Pro Gly
162             260                 265                 270
163 Gly Leu Glu Ser Pro Leu Leu Leu Asp Ser Pro Thr Ser Arg Thr Pro
164         275                 280                 285
165 Pro Pro Pro Ser Cys Ser Ser Ala Ser Ser Cys Ser Ser Ser Ala Ser
166     290                 295                 300
167 Ser Cys Ser Ser Ala Ser Ala Ala Ser Thr Pro Ser Gly Thr Pro Thr
168 305                 310                 315                 320
169 Cys Cys Ala Ser Ala Ala Ala Ala Leu Arg Leu Leu Tyr Gly Thr Gly
170                 325                 330                 335
171 Gly Ala Glu Asp Leu Leu Ala Pro Gly Ala Pro Cys Ala Ala Cys Ser
172             340                 345                 350
173 Ser Ala Ser Cys Ala Asn Asn Ala Phe Ala Phe Gly Pro Glu Leu Ser
174             355                 360                 365
175 Ser Leu Ile Thr Pro Leu Ala Ile Gln Thr His Asn Phe Ala Ala Val
176         370                 375                 380
177 Ala Ala Ala Ala Tyr Tyr Arg Ser Gln Gln Gln Gln Gln Gln Gln Gly
178 385                 390                 395                 400
179 Leu Ala Pro Pro Ala Gln Pro Pro Ala Pro Pro Ser Ala Thr Leu Pro
180             405                 410                 415
181 Ala Gly Ala Ala Ala Pro Pro Ser Pro Pro Phe Ser Phe Gln Leu Pro
182             420                 425                 430
183 Arg Arg Leu Ser Asp Ser Pro Val Phe Asp Ala Pro Pro Ser Pro Pro
184         435                 440                 445
185 Asp Ser Leu Ser Asp Arg Asp Ser Tyr Leu Ser Gly Ser Leu Ser Ser
186     450                 455                 460
187 Gly Ser Leu Ser Gly Ser Glu Ser Pro Ser Leu Asp Pro Gly Arg Arg
188 465                 470                 475                 480
189 Leu Pro Ile Phe Ser Arg Leu Ser Ile Ser Asp Asp
190             485                 490
192 <210> SEQ ID NO: 4
193 <211> LENGTH: 276
194 <212> TYPE: PRT
195 <213> ORGANISM: Xenopus laevis
197 <400> SEQUENCE: 4
198 Met Glu Ile Ser Asn Asp Ser Leu Asp Leu Phe Ser Ser Phe Phe Pro
199 1                   5                   10                  15
200 Gln Leu Ser Pro Pro Ala Asp Pro Glu Thr Pro Leu Leu Pro Ser Phe
201             20                  25                  30
202 Ser Ala Pro Pro Lys His Leu Ser Leu Ser Ser Leu Arg Tyr Lys Thr
203         35                  40                  45
204 Glu Leu Cys Ser Arg Tyr Ala Glu Ser Gly Phe Cys Ala Tyr Arg Asn
205     50                  55                  60
206 Arg Cys Gln Phe Ala His Gly Leu Ser Glu Leu Arg Pro Pro Val Gln
207 65                  70                  75                  80
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RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/049,586

DATE: 03/01/2002
TIME: 14:44:19

Input Set : A:\W127221.txt
Output Set: N:\CRF3\03012002\J049586.raw

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208 His Pro Lys Tyr Lys Thr Glu Leu Cys Arg Ser Phe His Val Leu Gly
209               85                   90                   95
210 Thr Cys Asn Tyr Gly Leu Arg Cys Leu Phe Ile His Ser Pro Gln Glu
211              100                  105                  110
212 Arg Arg Glu Pro Pro Val Leu Pro Asp Asn Leu Ser Leu Pro Pro Arg
213          115                  120                  125
214 Arg Tyr Gly Gly Pro Tyr Arg Glu Arg Cys Arg Leu Trp Ser Ala Pro
215      130                  135                  140
216 Gly Gly Cys Pro Tyr Gly Ala Arg Cys His Phe Gln His Pro Lys Ser
217 145                  150                  155                  160
218 Ala Arg Glu Thr Cys Arg His Phe Ala Ala Leu Gly Asp Cys Pro Tyr
219              165                  170                  175
220 Gly Ala Cys Cys His Phe Ser His Ser Pro Pro Leu Asp Arg Trp Gly
221          180                  185                  190
222 Ser Gly Thr Lys Asn Ser Ser Gly Ser Leu Ser Pro Ser Asp Pro Asp
223          195                  200                  205
224 Ser Asp Pro Asp Thr Pro Val Leu Ser Glu Ser Pro Ala Asn Asn Ala
225      210                  215                  220
226 Phe Ser Phe Ser Ser Leu Leu Leu Pro Leu Ala Leu Arg Leu Gln Ile
227 225                  230                  235                  240
228 Leu Gly Asp Asp Asp Leu Pro Thr Ala Ser Asp Pro Leu Pro Gly Asp
229              245                  250                  255
230 Asp Thr Asp Leu Leu Pro Gly Asp Glu Glu Ile Ala Gln Gly Leu Leu
231              260                  265                  270
232 Ser Val Leu Gly
233          275
235 <210> SEQ ID NO: 5
236 <211> LENGTH: 327
237 <212> TYPE: PRT
238 <213> ORGANISM: Cyprinas carpio
240 <400> SEQUENCE: 5
241 Met Phe Glu Thr Ser Thr Asp Asn Leu Phe Leu Phe Pro Thr Glu Gly
242 1               5                   10                  15
243 Leu Asn Glu Ala Phe Phe Pro Glu Glu Gly Leu Ala Ser Gly Ser Leu
244              20                  25                  30
245 Ser Leu Ala Lys Ala Leu Leu Pro Leu Val Glu Ser Pro Ser Pro Pro
246          35                  40                  45
247 Met Thr Pro Trp Leu Cys Ser Thr Arg Tyr Lys Thr Glu Leu Cys Ser
248      50                  55                  60
249 Arg Tyr Ala Glu Thr Gly Thr Cys Lys Tyr Ala Glu Arg Cys Gln Phe
250 65                  70                  75                  80
251 Ala His Gly Leu His Asp Leu His Val Pro Ser Arg His Pro Lys Tyr
252              85                  90                  95
253 Lys Thr Glu Leu Cys Arg Thr Tyr His Thr Ala Gly Tyr Cys Val Tyr
254              100                 105                 110
255 Gly Thr Arg Cys Leu Phe Val His Asn Leu Lys Glu Gln Arg Pro Val
256          115                 120                 125
257 Arg Gln Arg Cys Arg Asn Val Pro Cys Arg Thr Phe Arg Ala Phe Gly
258      130                 135                 140
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3/1/02

Input Set : A:\W127221.txt
Output Set: N:\CRF3\03012002\J049586.raw

L:12 M:270 C: Current Application Number differs, Replaced Current Application No
L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:637 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27